CATS NEWSLETTER

CAPITAL AREA TIMEX SINCLAIR
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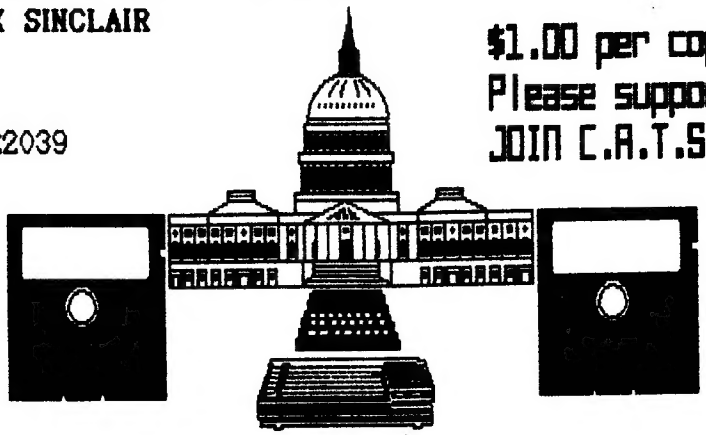

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April, 1989

IN THIS ISSUE

Potpourri-CapitalFest News	3
Connect <300>	4
Call Un-Waiting	4
Core War	5
Archive Character Codes	7
Art Gallery-Herb Schaaf's Drawings	8
QL/MS-DOS Emulator	9
The Classifieds	11

JUST WAITIN' FOR THE 5TH OF MAY!

CONTRIBUTORS

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PRESIDENTIAL RAMBLINGS

☆ CAPITAL FEST

T-minus one month and counting! Put a big, red circle on your calendar for May 5-7th. Things are coming along great! (See Bob Curnutt's report inside) It looks like we are destined for a big turn out both from attendees and vendors; we have people coming from all other the country and from Canada, too! Please get your advance admission and banquet fees in, if you haven't already. Equally important, we need volunteers to help with all aspects of the Fest. I would like to remind everybody that a large majority of the members voted to have this Fest and it was made clear then that we would need everybody's help - well, the TIME IS NOW! Audrey and her committee have done magnificently, but they need YOUR help to pull it off. Please give generously of your time! Talk to Audrey at the April meeting or give her a call to discuss things that you can do to help.

☆ MAY NEWSLETTER

The May newsletter will do double duty - it will also serve as the official program of the Fest. It will be filled with items on the Fest as well as outlines of the various talks. It will be a fantastic issue - a collector's item! The easiest way to get yours will be to come to the Fest. They will not be mailed out until after the Fest due to time constraints.

☆ OFFICER NOMINATIONS

Election of the officers will be held at the June meeting (for terms commencing July 1, 1989 through June 30, 1990). The Nominating Committee will make its report at that time. But, it's not too early to get your nominations in now! The only requirements are the nominated individual must be a member and be willing to serve, if elected. Length of membership in the club does not make a difference - it is willingness to serve the club and enthusiasm that make the difference! Nominations will be solicited at the April meeting and at the Fest, as well as at the June meeting.

SEE YOU AT THE FEST! (and the April meeting,too!)

Bill

PS - Note to Executive Board members: there will be no April Executive Board meeting because of preparations for the Fest.

CAPITALFEST. From our coverage in this issue, you'd have to have the IQ of a turnip not to realize that it is THE event for CATS this year. If all goes well, it should rank right up there with the Fall 1983 Boston Computing Society Timex/Sinclair bash to introduce the TS2068. For those sitting on their thumbs playing the "grand spectator" role, I hate to rain on your parade. The success of the Fest certainly won't be attributed to you, but the failure will. Apathy is alive and well in CATS. I don't make this observation lightly. It is born of nearly 2 years of frustration at trying to coax newsletter material from a majority that resemble sponges. They come to the meeting, soak up what ever is presented, and go home. Between meetings, NOTHING. Well, I concede that you may feel reluctant to write anything for fear that the "experts" might find an error. While I personally would argue that no one is perfect--even the experts make mistakes--I will concede that this may be an impediment to contributing to the newsletter. IT DOES NOT, HOWEVER, EXCUSE YOUR EGREGIOUS BEHAVIOR AT NOT VOLUNTEERING YOUR TIME AT THE FEST.

• The challenge

You know who you are. Call Audrey or someone on the Fest committee or see them at the meeting and ask how you can help. There are many jobs that need doing. And you don't have to be a computer guru to do them. Just like the Army, if you don't volunteer, you will be assigned to a time slot. Volunteers get their pick. When this project was discussed with the membership last Fall, everyone agreed to pitch in. Now its time to make good on your promise.

• EMSOFT

Last month I talked about EMSOFT's TAX-I-QL/88 program. If you didn't get a copy, too bad. It made my tax preparation chores a breeze. Given our government's voracious appetite for money, nearly everyone has to file a tax form these days. If you can't file one of the abbreviated forms (1040EZ or 1040A), you need TAX-I-QL. Unless your financial matters are very complicated, it will do the trick and for a lot less than H & R Block will charge. An added benefit is that it allows you to use your computer in a productive manner and, quite possibly, learn a little more about the ABACUS program. Peter Hale, EMSOFT's proprietor will be at the 'Fest. In case you didn't know it EMSOFT is the software side of Peter's Estate Management Services, a small Boston based financial services and property management firm. Over the years Peter has developed variouss software packages for in-house use, some of which he is releasing to the public. The first was Mailbag, an address database program. It can be used to print about any sized label, Rolodex cards, or tractor/cut sheet paper. Two mail merge facilities are included. Its other features are too numerous to list so I suggest that you contact EMSOFT at P.O. Box 8763, Boston, MA 02114-8763 for a current catalog. In it you will see advertised two new programs, TRUST_FUND and QLAND_LORD. The first is used to track your investments with each one being separately reported. QLAND_LORD is a property management program which can be used for up to 99 units or separate properties. It will help you to track expenses (capital, repairs, or common charges) and income. Everything is summarized so you can feed it into Schedule E! Now he is offering his corporate wing to some other US software developers, Matthew Zenkar, Al Feng, SirusWare, Michael Mitchel, and Bill Cable of Wood and Wind Computing. Peter offers them a platform in which to advertise their programs, the EMSOFT catalog, and handles the distribution end of the business. You order through Peter and he gets your request to the source. Any shipping problems are handled by EMSOFT. If you have problems with the software, you go directly to the writer/source. I think that's an excellent idea as it tries to eliminate one of the big bottlenecks that seems to occur with small one man operations. Hopefully this venture will expand in the future. I look forward to meeting Peter in person at the Fest. Who knows what goodies he will have in his bag.

• This issue

I'm happy to report that this issue is

Continued on Page 11

Key Dates

APRIL

8 General Membership Meeting

21 May Newsletter DEADLINE

MAY

5-7 CAPITALFEST

23 Executive Board Meeting

26 June Newsletter DEADLINE

JUNE

10 General Membership Meeting

APRIL MEETING AGENDA

11:00 Hardware Workshop

2:00 General Meeting

4:30 Adjourn

NEWSLETTER SUBMISSIONS

Submissions for the newsletter can be in hard copy, with *columns 2 3/8 inches wide* or, preferably, magnetic media. For the QL, microdrive cartridge, 5 1/4" DS/DD or Quad density disks, or 3 1/2" disks. For the ZX81, TS1000, or 2068, cassettes only, with titles on the box.

Send material to:

Editor, CATS Newsletter

Box 467

Fairfax Station, VA 22039

POTPOURRI

News Around the Beltway

CAPITAL FEST NEWS

- **Deadline extended**

When you receive this newsletter the CAPITALFEST will be less than ONE month off. WE HAVE EXTENDED THE CUT-OFF DATE for BOTH advance tickets and hotel reservations, until 4/15/89. The banquet is to be held May 5th, promptly at 7:00 P.M. The price is $16.50 for each person. There is very limited seating and if you have not sent in your reservation, do so at once!

- **Sinclair world "biggies"**

Nigel Searle, Jack Dohany, Sharp's, WMJ, Time Designs, Sync-Ware News, Peter Hale (EMSOFT), and many more will be at the FEST. There will be many surprizes for you at this affair; each Sinclair machine will be represented in the seminars, especially including the ZX-81. The **"flea market"** will be open Saturday afternoon and ALL DAY Sunday. Saturday night we will have a round table discussion, including S.N.U.G. The FEST will have something for everyone, with many surprizes! I feel anyone attending will find it well worth while. SEE YOU THE FIRST WEEK IN MAY!

1989 CapitolFest

MAY 5th, 6th &7th

at the Washington DC, Howard Johnson Plaza New Carrollton, MD. Sponsored by CATS.

Make your spring plans now!!

The Capital Area Timex Sinclair User Group is sponsoring The 1989 Computerfest for all Timex and Sinclair Computers. These include 1000, 2068, QL, Z88 and other Sinclair related PC's. There will be a Friday night Banquet (limited seating) and 2 days of true festivities, including seminars, guest speakers, swap meet, vendors and more...

Washington holds more cultural playtime activities for your whole family than any other US city. Come and see for yourself!

To receive more information about the Fest and Washington DC, drop us a line and we'll send you an information packet

CATS CAPITOLFEST
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<CONNECT 300>

☎ More Things to Do with Your Modem

Last month, I explained some of the unexpected problems you may experience with the CATS BBS and other telecomputing services. Many of you have now logged onto the BBS. Now that you've taken this first step, what else can you do with your modem?

First, you can call over 300 other BBSs in the DC area. These systems are oriented mostly towards MS-DOS, but we can still use them with our T/S and QL systems. T/S-1000 users be warned - the wide screen displays used by many BBSs are impossible to read on a 32-column display! We can't use their fancy color graphic (ANSI in MS-DOS lingo) menus either.

☎ Metro BBS listing

A project by Mike Focke and Jeff Morley (sysop of the Interconnect BBS in Falls Church, VA.) makes finding local systems easy. They maintain a database of every BBS in the DC area! Look for a file named DCBBmmyy.ARC (where mm is the month and yy the year) for the latest list (e.g. DCBB0289.ARC is for February 1989). The BBS directory is usually also available as a bulletin message: titled "Focke's BBS List", "DCBBS List", or something similar. You can download the database and use its built-in data retrieval program if you have access to an IBM-PC.

☎ "Conference calls"

One feature we can use on these BBSs are their message bases and conferences. The "echo conferences" carried by members of the "FidoNet" BBS network can be especially interesting. They allow you to exchange public messages on a subject throughout the country.

You can find conferences on about every subject from Adventure to Zoology. While many messages are off-topic, juvenile, opinionated, or plain mis-informed, there are enough "gems" to make picking through the trash worth some effort (although at 300 baud, it can take a long time!). My favorites are the Communications, CP/M, and Space conferences.

☎ Downloading files

Another thing you can do with a modem is exchange files and programs. The CATS BBS doesn't have this capability yet, but we can add it if the demand warrants it. For now, you can probably find a local BBS that you can use to exchange files. In addition, I can act as a go-between on a limited basis. Leave me a message on the CATS BBS if you need help.

☎ "The contest" info

The response to the "name this column" contest is getting better! I want to have a name picked in time for the CapitolFest edition of this newsletter, so let's see more entries! Otherwise, you'll be stuck with these stupid modem messages at the start and end of each column.

☎ BBS "Caller of the Month"

BBS Caller of the Month is Phil Fratti for learning how to backspace and exit the message base system, and for suggesting several names for this column - Thanks Phil! Dumb move of month is mine. I forgot to slow-down my high-speed modem to 300 baud BEFORE calling the CATS BBS.

My connect time (column space) is up! 'Bye until next month (when I hope to talk about on-line services).

<NO CARRIER>

Editor's note: Remember the old ad that said, "Try it, you'll like it." Well, I've always been a little timid about using my modem, even though I subscribe to PC Pursuit. What would hppen if I struck the wrong key? I just knew I'd screw up and be stuck out "in North Parump"! The CATS BBS is an excellent way to gain confidence and, always remember, if your really lost and want to end a session, just pull the plug. Not polite, but it does stop the connect charges. For you QLers using QCode: Just hit F3, L(og) and you will be offered a file "log1_lis". Press enter and it will capture all of the messages. At the end, hit F5 to close it. You then can import the _lis file into Quill with the "files" option.

CALL UN-WAITING

As promised, your tireless CATS investigative team has successfully extracted from the bones of the once-mighty--but now-dismembered--telephone monolith some privileged information regarding the demonic option known as "Call Waiting".

You may remember from the previous episode in this on-going saga that--when a caller tries to reach the computer hobbiest who is tied up with his or her modem--the caller will inject a series of company-generated "beeps" and "clicks" into the modem line being used. This will usually be more than enough to cause the unexplained loss of the telephone connection, plus the issuance of some choice, world-class expletives.

Continued on Page 10

TAPE LIBRARY INFORMATION

The C.A.T.S. tape library is available to all full ($18) members. Prices, per cassette, are $3.00 by mail or $1.00 at the meeting.

C.A.T.S. does not have Public Domain software for sale.

Mail order requests, and submissions for publication, should be sent to the tape librarian:

Rev. John Riley

120 N. Fairlawn Dr.

Carrollton, GA 30117

Checks or money orders should be made payable to C.A.T.S.

We will continue to "compensate" contributors with one free cassette from the library.

CORE WAR

by Timothy Swenson

In May 1984 issue of Scientific American, A. K. Dewdney in his Computer Recreations column describes a game called Core War. The game is run by a monitor program called MARS (Memory Array Redcode Simulator). Essentially what the program does is to control two other programs written in an assembly-like language called REDCODE. The two programs are designed to try to destroy each other. They do this by somehow stopping the other program from running. They can put bad data in the middle of the program, take over control of the program, etc.

MARS is a computer simulation of a computer. It uses an array of strings to simulate memory spaces and executes programs that run in these spaces. The program executes one line of code from one Redcode program and then another line from the other. This continues until MARS can not execute a command. The program that bombs out is the program that loses.

Redcode is comprised of the following commands:

MOV A B - Move contents of address A to address B ADD A B - Add contents of address A to address B and put results in address B SUB A B - Subtract contents of address A from address B and put results in address B JMP A - Transfer control (jump) to address A JMZ A B - Jump to address A if contents of address B is equal to zero JMG A B - Jump to address A if contents of address B is greater than zero DJZ A B - Subtract one from contents of address B and jump to address A if contents of address B is equal to zero CMP A B - Compare contents of address A and B then skip next instruction if unequal DAT A - Non-executabel statement, used for storage of numbers RET - Used to end program. Not really part of REDCODE but it is used by the program to know the end of your program when reading it in from the data statements.

All of the addresses in Redcode are relative. PC is the Program Counter, this controls what line MARS is executing. MOV 0 1 means to put the contents of address PC+0 (in other words the current line) and put it in address PC+1 (the next line). Negative numbers are allowed to mean addresses before the PC.

Redcode does make provisions for direct and indirect addressing. A # before a number is direct addressing and an @ is used for indirect. MOV #0 1 means to put the number 0 in the address 1+PC. In indirect the commands:

DAT 20 MOV 0 @-1 means to put the contents of address 0+PC and store it at the address pointed at by the number at PC-1 (the previous line). MARS goes and gets the number stored at PC-1 and finds 20, it then puts the data at that address, PC+20.

Indirect addressing may be used for both A and B arguements, direct may be used for A, but direct may only be used for B with the CMP command. All other commands may not use direct addressing of B.

I must spend a minute and talk about the DAT command. The command itself does not execute, but it tells MARS that data is stored at this address. DAT statements are used similarly to variables. If you are going to add the contents of two addresses then they must be DAT statements. If a number is stored in an address that is not preceded by DAT it is considered a bug and the program bombs out.

The MOV and DAT commands interact different together. If you MOV #0 20 and address PC+20 is a DAT statement the 20 is added so that at PC+20 is stored DAT 0. But if PC+20 is not a data statement then just 0 is stored at PC+20. This is used to put "bombs" in programs. If you can drop a 0 in the middle of the other program then MARS will halt when it gets to that line causing the other program to crash.

Here are a few example programs:

IMP - copies itself to the next address and plows through memory.

MOV 0 1 RET

Dwarf - This puts 0's in every 5th address, laying down a barrage of 0's.

DAT -1 ADD #5 -1 MOV #0 @-2 JMP -2 RET

Gemini - This program copies itself forward 100 addresses in memory and then moves control to the copy.

DAT -2 DAT 99 MOV @-2 @-1 CMP -3 #8 JMP 4 ADD #1 -5 ADD #1 -5 JMP -5 MOV #-2 93

MOV #99 93 JMP 93 RET

To run the program, type the two programs you want into the data statements in lines 2000 (prog #1) and 3000 (prog #2). Then RUN the program. As each line of code is executed it is printed out on the screen along with the address at which it is at. This way you can the progress of the two programs. Also included in the program is a procedure called list_memory. This procedure copies out the contents of the memory array to the screen. This way you can see what is in memory.

There is a constant called top_mem. This defines how big the memory array is. If you find memory too small, just increase this constant.

```
100 DEFine PROCedure rs: DELETE
flp2_Core_War_bas: SAVE
flp2_Core_War_bas: END DEFine

110 top_mem=1000

120 DIM memory$(top_mem,14)

130 prog1=2000

140 prog2=3000

150 pc_prg1 = RND(1 TO 1000)

160 pc_prg2 = RND(1 TO 1000)

170 IF ABS(pc_prg1-pc_prg2)<100
THEN GO TO 150

180 load_prog

190 CLS #2: CLS #0 : CLS

200 PRINT #2," P R O G R A M # 1"

210 PRINT " P R O G R A M # 2"

220 REPeat main_loop

230 pc_main = pc_prg1

240 prog=1
```

Continued on Page 6

CORE WAR-Continued from Page 5

```
250 cmd$=memory$(pc_main)
260 PRINT #2,pc_main:" ":cmd$
270 sep_linc
280 evaluate
290 IF pc_prg1=pc_main THEN
300 pc_prg1=pc_prg1+1
310 ELSE
320 pc_prg1=pc_main
330 END IF
340 pc_main = pc_prg2
350 prog=2
360 cmd$=memory$(pc_main)
370 PRINT pc_main:" ":cmd$
380 sep_line
390 evaluate
400 IF pc_prg2=pc_main THEN
410 pc_prg2=pc_prg2+1
420 ELSE
430 pc_prg2=pc_main
440 END IF
450 IF pc_prg1>top_mem THEN
pc_prg1=pc_prg1-top_mem
460 IF pc_prg2>top_mem THEN
pc_prg2=pc_prg2-top_mem
470 END REPeat main_loop
480 STOP
490 DEFine FuNction get_num(address)
500 LOCal temp$
510 temp$=memory$(address)
520 IF temp$="" THEN goto_error
530 IF temp$(1 TO 3) <> "DAT" THEN
goto_error
540 RETurn temp$(5 TO)
550 END DEFine get_num
560 DEFine PROCedure sep_line
570 LOCal blank
580 IF LEN(cmd$)<5 THEN goto_error
590 arg2 = 0
600 opcode$=cmd$(1 TO 3)
610 cmd$=cmd$(5 TO)
620 opmodea=1 : opmodeb=1
630 IF cmd$(1)="#" THEN opmodea=0
640 IF cmd$(1)="@" THEN opmodea=2
650 IF opmodea<>1 THEN cmd$=cmd$(2
TO)
660 IF (opcode$="JMP") OR
(opcode$="DAT") THEN arg1=cmd$ :
RETurn
670 blank = " " INSTR cmd$
680 arg1 = cmd$(1 TO blank-1)
690 cmd$=cmd$(blank+1 TO)
700 IF cmd$(1)="#" THEN opmodeb=0
710 IF cmd$(1)="@" THEN opmodeb=2
720 IF opmodeb<>1 THEN cmd$=cmd$(2
TO)
730 arg2=cmd$
740 END DEFine sep_line
750 DEFine PROCedure evaluate
760 IF opmodea=0 THEN a=arg1
770 IF opmodea=1 THEN
a=pc_main+arg1
780 IF opmodea=2 THEN
a=pc_main+get_num(pc_main+arg1)
790 IF opmodeb=0 AND
opcode$<>"CMP" THEN PRINT
#0,"Direct mode not allowed to second
argguement ": STOP
800 IF opmodeb=0 THEN b=arg2
810 IF opmodeb=1 THEN
b=pc_main+arg2
820 IF opmodeb=2 THEN
b=pc_main+get_num(pc_main+arg2)
830 IF a>top_mem THEN a=a-top_mem
840 IF b>top_mem THEN b=b-top_mem
850 IF opcode$="MOV" THEN MOV:
RETurn
860 IF opcode$="ADD" THEN ADD:
RETurn
870 IF opcode$="SUB" THEN SUBT:
RETurn
880 IF opcode$="JMP" THEN JMP:
RETurn
890 IF opcode$="JMZ" THEN JMZ:
RETurn
900 IF opcode$="JMG" THEN JMG:
RETurn
910 IF opcode$="DJZ" THEN DJZ:
RETurn
920 IF opcode$="CMP" THEN CMP:
RETurn
930 IF opcode$="DAT" THEN RETurn
940 goto_error
950 END DEFine evaluate
960 DEFine PROCedure load_prog
970 LOCal count, prog$
980 RESTORE prog1
990 count = pc_prg1
1000 REPeat loop
1010 READ prog$
1020 IF prog$="RET" THEN EXIT loop
1030 IF count>top_mem THEN
count=count-top_mem
1040 memory$(count)=prog$ 1050
count=count+1
1060 END REPeat loop
1070 RESTORE prog2
1080 count = pc_prg2
1090 REPeat loop
1100 READ prog$ 1
110 IF prog$="RET" THEN EXIT loop
1120 IF count>top_mem THEN
count=count-top_mem
1130 memory$(count)=prog$
1140 count=count+1
1150 END REPeat loop
1160 END DEFine load_prog
1170 DEFine PROCedure goto_error
1180 IF prog=1 THEN PRINT #2," E R
R O R"
1190 IF prog=2 THEN PRINT "E R R O
R"
1200 CLS #0 1210 PRINT #0,"A
Winner has been found."
1220 PRINT #0,"Player #";prog;" has
```

Continued on Page 8

Core Wars-Continued from Page 6

```
lost."
1230 STOP
1240 END DEFine goto_error
1250 DEFine PROCedure MOV
1260 IF opmodea=0 THEN
1270 temp$=memory$(b)&" "
1280 IF temp$(1 TO 3)="DAT" THEN
1290 memory$(b)="DAT "&a
1300 ELSE
1310 memory$(b)=a
1320 END IF 1330 ELSE
1340 memory$(b)=memory$(a)
1350 END IF
1360 END DEFine MOV
1370 DEFine PROCedure ADD
1380 LOCal temp
1390 IF opmodea=0 THEN
1400 temp=get_num(b)+a
1410 ELSE 1420
temp=get_num(b)+get_num(a)
1430 END IF
1440 memory$(b)="DAT "&temp
1450 END DEFine ADD
1460 DEFine PROCedure SUBT
1470 LOCal temp
1480 IF opmodea=0 THEN
1490 temp=get_num(b)-a
1500 ELSE
1510 temp=get_num(b)+get_num(a)
1520 END IF
1530 memory$(b)="DAT "&temp
1540 END DEFine SUBT
1550 DEFine PROCedure JMP
1560 pc_main = a
1570 END DEFine JMP
1580 DEFine PROCedure JMZ
1590 LOCal temp
1600 temp = get_num(b)
1610 IF temp=0 THEN JMP
1620 END DEFine JMZ
1630 DEFine PROCedure JMG
1640 LOCal temp
1650 temp = get_num(b)
1660 IF temp>0 THEN JMP
1670 END DEFine JMG
1680 DEFine PROCedure DJZ
1690 LOCal temp
1700 temp = get_num(b)
1710 temp=temp-1
1720 memory$(b)="DAT "&temp
1730 IF temp=0 THEN JMP
1740 END DEFine DJZ
1750 DEFine PROCedure CMP
1760 LOCal tempa,tempb
1770 IF opmodea=0 THEN
1780 tempa=a
1790 ELSE
1800 tempa=get_num(a)
1810 END IF
1820 IF opmodeb=0 THEN
1830 tempb=b
1840 ELSE
1850 tempb=get_num(b)
1860 END IF
1870 IF tempa<>tempb THEN
pc_main=pc_main+2
1880 END DEFine CMP
1890 DEFine PROCedure list_memory
1900 FOR x=1 TO top_mem
1910 PRINT memory$(x)
1920 NEXT x
1930 END DEFine list_memory
2000 DATA "DAT -2","DAT
99","MOV @-2 @-1","CMP -3
#8","JMP 4","ADD #1 -5"
2010 DATA "ADD #1 -5","JMP
-5","MOV #-2 93","MOV #99 93","JMP
93","RET"
3000 DATA "DAT -1","ADD #5
-1","MOV #0 @-2","JMP -2","RET"
```

Archive Character Codes

by Peter Hale

From the BosTUG N/L, Jan/Feb 1989

New who use Psion's Archive realize that it redefines many of the codes in the character set.

The following Archive control codes differ from those used in SuperBASIC. Some do unexpected things; some do ordinary things in different ways.

Dec Code	Archive Key press	SBasic Key Press	Error Code
0	CRTL £	CTRL £	
1	???	CTRL A	92
2	UP ARROW	CTRL B	92
3	DOWN ARROW	CTRL C	92
4	RIGHT ARROW	CTRL D	92
5	LEFT ARROW	CTRL E	
6	^UP ARROW	CTRL F	
6	ALT^LT ARR	CTRL F	
7	^DOWN ARROW	CTRL G	92
7	ALT^RGT ARR	CTRL G	92
8	^RGHT ARROW	CTRL H	
9	^LEFT ARROW	CTRL I	92
9	^LEFT ARROW	TAB	92
10	SHFT UP ARR	CTRL J	
10	SHFT UP ARR	ENTER	
11	SHFT DN ARR	CTRL K	
12	SHFT RT ARR	CTRL L	
13	SHFT LT ARR	CTRL M	
14	^SHFT RT AR	CTRL N	
15	^SHFT LT AR	CTRL O	
16	ALT RGT ARR	CTRL P	92
17	ALT LFT ARR	CTRL Q	92
18	F1	CTRL R	92
19	F2	CTRL S	
20	F3	CTRL T	92
21	F4	CTRL U	92
22	F5	CTRL V	92
23	SHIFT F1	CTRL W	92
24	SHIFT F2	CTRL X	92
25	SHIFT F3	CTRL Y	92
26	SHIFT F4	CTRL Z	
27	ESC	ESC	92
27	CTRL SHFT 1	^SHIFT 1	92
28	SHIFT TAB	^SHIFT \	
29	TAB or ^I	^SHIFT)	92
30	ENTER or ^J	^SHIFT £	
31	SHIFT F5	^SHIFT ESC	92

Error code 92 in Archive is 'missing I/O parameter'. It is returned when you try to print the chr to the screen.

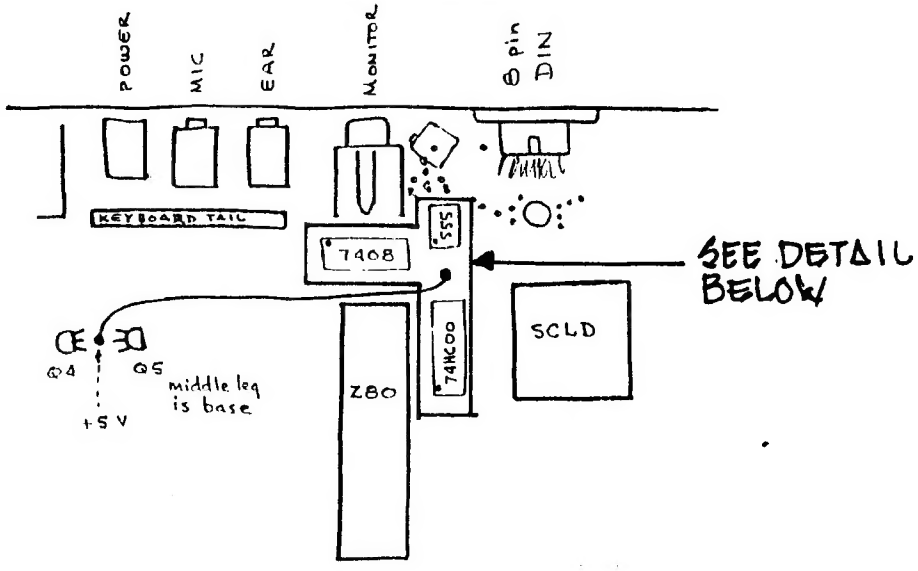
Character codes 6, 7, 9, 10, 27 and 30 may be accessed by more than one keypress.

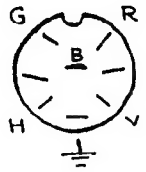
Character 5 (left arrow) underlines the print statement that

Continued on Page 10

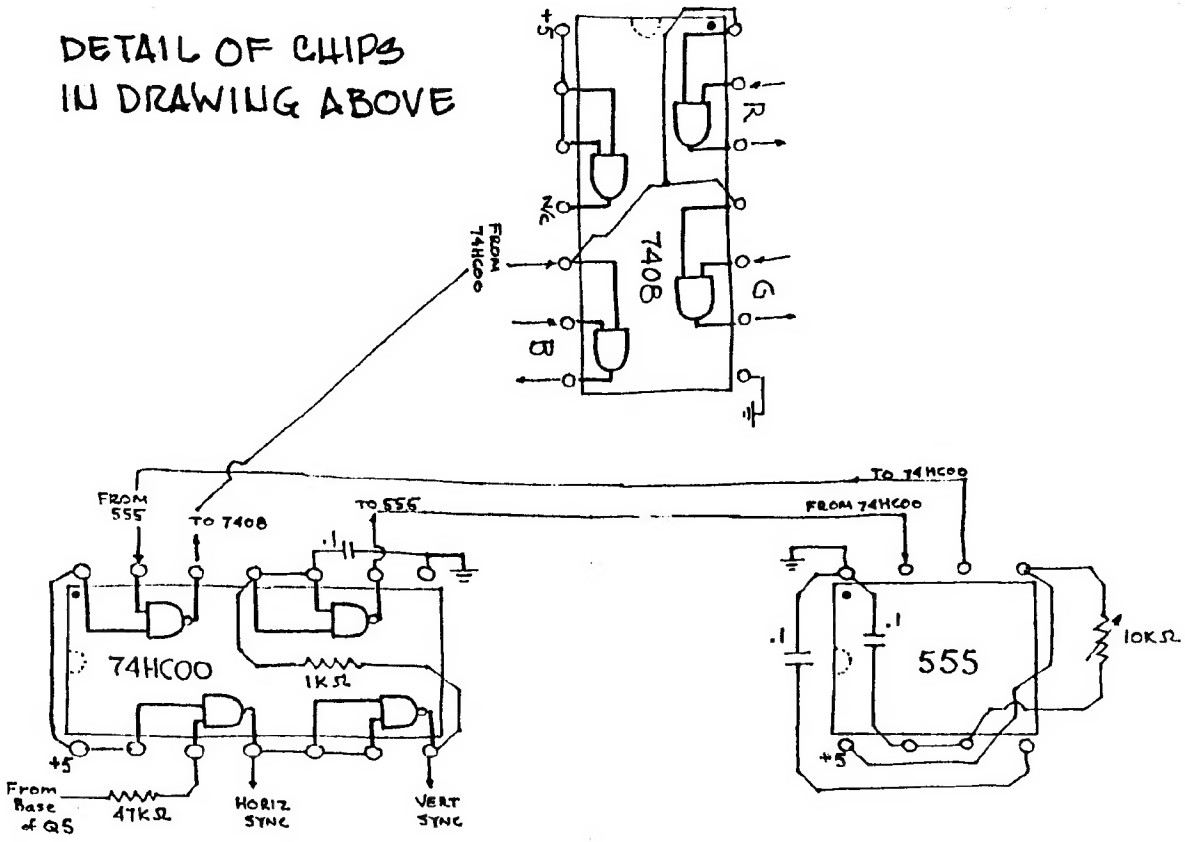
The Art Gallery

The drawings on this page were omitted from the article, "Retrace Lines: 2068 and RGB Monitor", by Herb Schaaf in the January 1989 issue. We regret any inconvenience caused by this omission..





DETAIL OF CHIPS IN DRAWING ABOVE



A QL/MS-DOS Emulator--Finally!

Reprinted from the BosTUG Newsletter, January/February 1989

MULTI-TASKING MS-DOS

A hardy breed, Sinclair QL owners long ago learned to weather the pitying stares of friends, colleagues, computer sales clerks and other assorted ignorami.

"Sinclair, Oh, didn't he die?" "I heard he built a new computer but it didn't work." "Why, don't you get a computer that can use real software?" "QDOS? I don't know anything about it."

Protestations of multi-tasking ability and speed aside, most QL owners retreat to quiet corners and munch on stale popcorn in any gathering of IBM/clone users. Then they go home with a certain feeling of loneliness.

Now you can be the first kid on the block to really give it to those nerds that are messing around in MS-DOS land - and for only $149.95 plus s+h.

Imagine telling those nerds that for only $149.95 you can now multi-task MS-DOS software and for $80.00 more sport MS-DOS 4.0 which hasn't even been advertised yet by Microsoft.

Digital Precision has released the SOLUTION, an MS-DOS emulator that runs on the QL. Whether this is a step up or a step down, I leave to you to decide.

SOLUTION is a software emulator of IBM PC and MS-DOS in 100% machine code. It supports full CGA-standard Multi-color graphics and text emulation AND IS INHERENTLY MULTI-TASKING!!!!

BIOS is rewritten in unbelievably efficient, highly linearised, optimal 68000 code. Speed is very much greater than one would expect and approaches that of a compiler (not an interpreter) and clearly outperforms the Atari ST emulator. At 1 MHz clock it is more than adequate for anything other than interactive games (and what games on a PC are worth anything anyway?)

The SOLUTION auto-boots. That's all there is to it! Devices are user configurable. Two IBM character sets are available. You can read/write/format PC/MS-DOS disks and even transfer files from QDOS to MS-DOS and vice versa.

Not only can you multi-task MS-DOS, you can have both MS-DOS and QDOS at the same time. Imagine moving between D-Base and Quill or playing Blocklands while working on a Lotus 123 spreadsheet.

With the Trumpcard, a massive 667K is available to MS-DOS. This is more than is available on a maximally expanded IBM. (With a 512K expansion 420K is available.)

The only limitation is software that makes hardware specific calls (a no-no in any case and pretty much restricted to game software) or requires lockboxes for protection.

The nerds will turn green with envy. And want to get their own. They will have to buy an expanded QL with disc drives. You only have to contact Mark at Sharps, Box 326, Mechanicsville, VA 23111 (804) 730-9697.

Call Un-Waiting-Continued from Page

The CATS team held several clandestine meetings with C&P informant "Deep Mouthpiece". A solution emerged for computerists who—for some perverse reason—want Call Waiting on their modem lines.

The answer to this conundrum is another demonic option from C&P called "TONE*BLOCK". The rules for using it:

** If you have a 12-button Touch-Tone set, push the "*" button and then "7-0".

** If you have a rotary or pulse-dialing phone, simply dial "1-1-7-0".

** Listen for a dial tone, then dial the number you wish to reach. TONE*BLOCK is now in effect for that call only.

** You must activate TONE*BLOCK before you make each call to prevent the Call Waiting garbage from coming in. Once TONE*BLOCK is activated, the person calling you will hear a busy signal.

** The Call Waiting garbage is automatically reactivated when you hang up or make your next call.

If you are using a phone line and modem but do not have Call Waiting, then you can ignore all of the above.

If for some perverse reason you do not have—but want to get—Call Waiting, dial 1-800-638-6363, operator 103, during working hours Monday through Friday. Call Waiting is $3.50 per month. TONE*BLOCK is free.

So from here on out, HAPPY*BLOCK-ING!!

A FEST, A FEST...MY KINGDOM FOR A FEST!

As time draws near for launching the Capital Area's 1989 ComputerFest, some observations are in order:

Fest Chairman Audrey Curnutt—ably assisted by her husband, Bob—has planned an event that will be enticing to all users of things Sinclair: ZX80/ ZX81/TS1000/TS1500/TS2068/QL/Z88.

It will be multi-dimensional in concept and execution, in that all segments of Uncle Clive's family—no matter how obscure—will be welcomed and honored.

It will be the only large-scale Sinclair event taking place in the continental U.S. in 1989.

It may be the last Sinclair event of its kind, ever, anywhere.

All present members of CATS should seize the opportunity to help Audrey, Bob and the members of the Fest committee with all conceivable tasks—from setup to security to cleanup.

Present members should plan to buy their $7 weekend tickets at the April business meeting. This will show support that exceeds good intentions only.

All past members of CATS should plan to come by (at $5 per day) to observe how the thing they started has come to fruition.

The extant Sinclair umbrella group for users (S.N.U.G.) will be conducting some business at the Fest. Be a witness to the history being made!

Editor Vernon Smith is well-intentioned but misguided in saying "It doesn't matter" whether an "O" or an "A" is used in spelling "Capit AlFest". He concedes there is a difference, and that is why it really matters. Sinclair BASIC will not accept a statement with invalid syntax. Why should we perpetrate fuzzy and inaccurate titles for this, a computerist's event?

There will be many out-of-towners ("touristas"?) coming to visit the Fest. All CATS members should consider themselves part of a huge "welcoming committee" which exists only to make the visitors feel comfortable and at home.

If all these things are indeed done, we may be certain that the success and enjoyment shared during the Fest will endure for months and years to come in the memories of those who helped create them—YOU !!

Archive Character Codes-From Page 7

follows until there is another chr(5) or a line feed. Similarly, chr(20) inverts the current paper/ink combination. It is terminated by another chr(20) or a new paper or ink selection.

Chr(6) is equivalent to ! in SuperBASIC - it generates an extra space; chr(8), Back Space, sends the next printed character to overwrite the last printed character; chr(10) is like \ in SuperBASIC, Line Feed; chr(12) is Form Feed; and chr(13) is still Carriage Return. I didn't figure out the others.

These character codes can be implemented in Archive programs by including them in print statements. For example:

```
print chr(5);"HI";chr(5);" HI"
```

underlines only the first "HI".

The following procedure demonstrates the effect of different codes in the ARCHIVE character set.

```
proc test_code
 let n=1
 while n<32
  print tab n;n;chr(n);" HELLO"
  let n=n+1
  endwhile
```

Each time you get an error 92, edit the procedure to let n equal the next greater number than the value at which the error message was reported so you can continue.

You may also want to try this procedure:

```
proc test_key
 let n=code(getkey())
 print n
 test_key
```

Press a key combination to verify the table above. You will find that F1 (and sometimes F2) will return 31, which should be SHIFT F5. This is because both F1 and F2 include the code for SHIFT F5.

This procedure is recursive, it will continue to call itself indefinitely. Get out by holding the <ESC> key.

Try printing characters 225 to 235 (to the screen). Modify the procedure test_code above to let n=225 and have the while loop terminate at 235 or above. There are some interesting symbols no one has told you about.

Knowledge of these undocumented codes can make ARCHIVE programs much more interesting than you once thought.

THE CLASSIFIEDS

FOR $10 YOUR AD COULD APPEAR IN THIS SPACE!

The SWAP MEET/FLEA MARKET for the CapitalFest will be on Saturday afternoon and all day Sunday. That ought to be enough time for the most die hard Sinclair junkie to satisfy all of his innermost dreams. It is *rumored* that Zebra is getting out of the Timex/Sinclair business and will have a truck load of goodies to sell. If this Fest is like the others, there will be bargains galore. In the spirit of things, and being your classic Type A person, your editor is starting early with the ad below.

FOR SALE

QL Barcode reader, software, and custom transformer

$ 129.95 (shipping is EXTRA)

The only known barcode reader in the United States. This rare unit reads the Telepen barcode. Comes with software to read and WRITE barcodes. Custom transformer supplies 240v. which is needed to operate barcoder.

This is a must item for the QL enthusiast who "has one of everything".

Vernon Smith—(703) 978-1835

or by mail via the CATS P.O. Box

Please patronize our advertisers–Mention CATS when you do

mostly "home grown". If you look at the February/March, issue you will see that it contains mostly articles received from other N/Ls, something I'd rather not do. Thank you for rising to the occassion. As I indicated earlier, this issue will have several articles directed toward the Capital Fest, leading off with Bob Curnutt's update in the Potpourri section. Steve Greene's inaugural column delves into the world of telecommunications. Hank Dickson tells us how to defeat the "enhanced feature" which strikes fear in to the telecomm types, Call Waiting. Tim Swenson has contributed Core Wars which started last month. I reprinted last month's introduction again because I think it should go with the article. If you are at all interested in computer viruses, give it a read. In reality, you are trying to design one in Core Wars. Herb Schaaf has a design of the circuit for his 2068 Screen Retrace article which ran in the January issue. I forgot to include it when it first ran, and for this I appologize. Finally, a few articles received in the N/L exchange.

I hope you enjoy this issue. See you at the meeting.

Tswenson

ADVERTISING INFORMATION

C.A.T.S. will run one free 1/4 page "commercial" ad per one year full ($18) membership. Noncommercial ads may be submitted at any time. Publication dates for both types will be determined by the Newsletter Editor.

Advertising Rates

Full page $25; 1/2 page $15; 1/4 page $10; 2" x 2 1/2" $7

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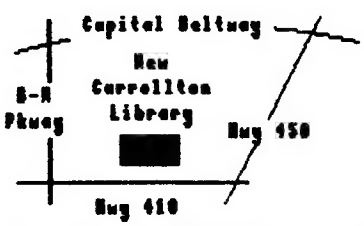

The next meeting of CATS will be held on:

Saturday, April 8, 1989 11:00 AM Hardware Workshop
2:00 PM General Meeting

At: New Carrollton Public Library
7414 Riverdale Road (Hwy 410), New Carrollton, MD

IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECEIVE

DUES: $18 per year, per family

The Capital Area Timex Sinclair Users Group

is a not-for-profit group devoted to serving the interests of those who own, use, or are interested in the Timex/Sinclair family of computers.

Executive Board

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Members at Large	Mark Fisher
	Phil Russo
	Bob Curnutt
Immediate Past President	Tom Bent
Editor & contact person	Vernon Smith (703) 978-1835

CATS maintains a gratis exchange of newsletters with approximately 30 Users groups across the U.S. Clubs not sending a n/l to us for six months are automatically taken off the list.

Meetings

Monthly meetings are held from 11 AM to 4:30 PM, on the second Saturday of each month, at the New Carrollton Public Library.

Newsletter

Memberships cost $18 per year, are good for 12 months, and include all privileges (access to libraries, group buys, etc.). A newsletter subscription only is available for $12 per year.

Networks

Timex SIG on Compuserve: Wednesday night, 10 P.M. Eastern time (GO CLUB).

QZX BBS: (505) 522-7081 FIDO net 15, node 6. East Coast dial (703) 547-4815 FIDO net 18, node 9.

CATS BBS: (301) 588-0579. 8-N-1. CapitalFest and general information. 24 hours a day.